DELORME

## Getting Started with

# Earthmate® GPS BT-20

Bluetooth®

# Table of Contents

Overview ..... 2

Hardware Features ..... 2

Using the Earthmate GPS BT-20 ..... 3

Charging the Battery ..... 4

Troubleshooting ..... 4

Hardware Specifications ..... 6

FCC Certification ..... 6

Caution ..... 7

FCC Radiation Exposure Statement ..... 7

Battery Caution ..... 7

Limited Warranty ..... 7

DeLorme Contact Information ..... 8

# Getting Started with the Earthmate® GPS BT-20

## Overview

Thank you for purchasing the *Earthmate GPS BT-20*. This versatile device can be used in one of two ways:

- As a wireless Bluetooth® device, along with a Bluetooth-enabled PDA or laptop computer
- As a USB device, when connected to the USB port on a laptop computer

Once you connect to a compatible PDA or laptop, you can use the *Earthmate GPS BT-20* and a compatible mapping application to track your location while you are moving.

**Note:** The *Earthmate GPS BT-20* acquires satellites more quickly and generally perform best when used under normal climatic conditions. Do not store the device in extreme hot or cold temperatures when not in use; this may impair the device's ability to acquire satellite data.

## Hardware Features

- Power button
- 3 LED lights

**Charge Status LED**

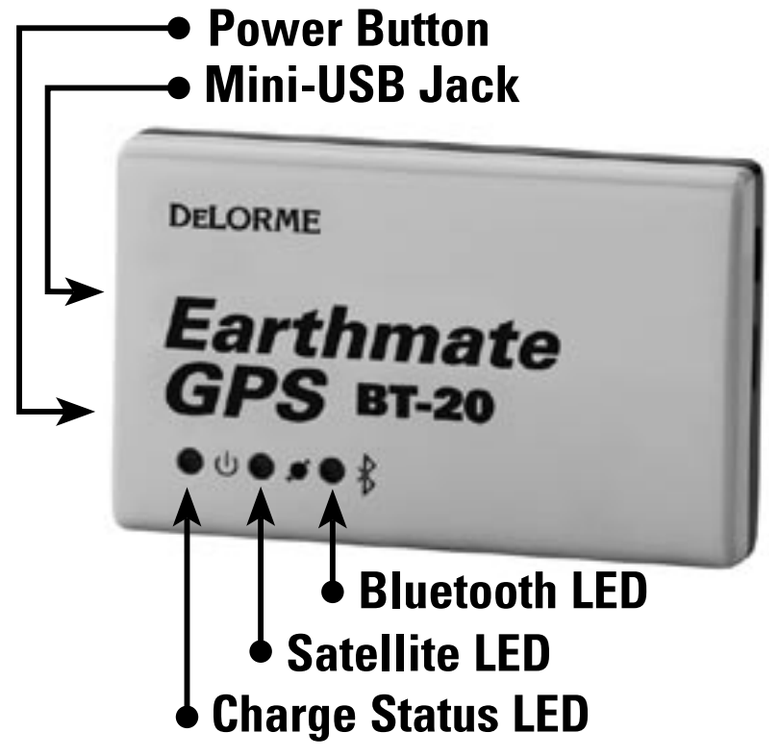
- Solid green: external power available, battery fully charged
- Solid yellow: battery charging
- Solid red: low battery

**Satellites LED**

- Flashing green: 3-D fix
- Flashing yellow: 2-D fix
- Flashing red: no fix

**Bluetooth LED**

- Solid blue: Bluetooth connection
- Flashing blue: no Bluetooth connection



# Using the *Earthmate GPS BT-20*

To track your progress while you travel, connect the *Earthmate GPS BT-20* to a laptop or PDA with a Bluetooth connection to display your location on any NMEA 2.0-compliant mapping application, such as Street Atlas USA®, Topo USA®, or XMap®.

Follow the steps below for the connection you are using. Before you start, make sure your mapping application is installed.

### To Use the *Earthmate GPS BT-20* with a USB Connection

Plug the Earthmate GPS BT-20 device into a USB port on your laptop computer.

1. Configure the GPS device with the mapping application.
2. Open the mapping application.
   a. Click the **Options** button on the toolbar and click the **GPS Settings** tab.
   b. Select **Earthmate** or **Generic NMEA** from the **Device** drop-down list.
   c. Select **USB** from the **Port** drop-down list.
3. Click **Start GPS** button in the toolbar to begin tracking with the device.

### To Use the Earthmate GPS BT-20 with a Bluetooth Connection

1. Ensure the battery is charged.
2. Turn on the GPS device.
3. Wirelessly connect the device to a PDA or laptop. If you are connecting the device to a laptop, use your Bluetooth Manager (the Bluetooth software that came with your Bluetooth-enabled PDA/laptop or Bluetooth adapter) to search for and make a serial connection to the device. For PDAs, connect using Bluetooth Manager. If Bluetooth Manager is not available, connect using the GPS Settings in the mapping application.
4. Configure the mapping application:
   a. Open the mapping application.
   b. Open the GPS settings.
   c. Select the appropriate COM port.

      Palm OS and Windows Mobile/Pocket PC users: Under the device settings, select **NMEA 0183**.

      Laptop users: Under the device settings, select **Earthmate** or **Generic NMEA**.

d. Wirelessly connect to the GPS device. If you experience difficulty connecting to the GPS device, turn the device off, turn it back on, and then try connecting to the device again.

5. Perform GPS tracking according to the protocol of the mapping application.

## Charging the Battery

The *Earthmate GPS BT-20* comes equipped with a rechargeable, Lithium-Ion battery. The battery charges when the device is connected via USB or the vehicle power point adapter.

## Troubleshooting

### First Things to Check:

- Does the *Earthmate GPS BT-20* have a clear view of the sky? Buildings, mountains, and heavy foliage may block your satellite reception.
- Is your mapping software running properly without the *Earthmate GPS BT-20*?
- Have you tried disconnecting and then reconnecting the device?

### Why Won't the Device Acquire or Maintain a 3-D fix?

If the device cannot acquire or maintain a 3-D fix, it may be because the device's view of satellites is obstructed. Try repositioning the device to another location, such as in the middle or corner of the dashboard. You can check the signal strength at various locations in your vehicle using the steps below.

1. Open your DeLorme mapping application.
2. Click the **GPS** tab.
3. Click **Start GPS** (if the device has not already been started).
4. Click the **Status** subtab.
5. Under Satellite Listing, examine the values listed in the dB (decibel) column. To acquire a 3-D fix, at least one of the values should be greater than 40, some of the values might be in the 30s, and a few might be in the 20s. If your device is not receiving such values in its current position, move the device to another location, such as another place on the dashboard, until it reaches those values.

**Note:** If you cannot obtain a 3-D fix anywhere on your dashboard but can obtain a 3-D fix outside of your vehicle, it may be because you have a heated/metallic-coated windshield that interferes with satellite signal. Heated/metallic-coated windshields are common in luxury vehicles. Try placing the Earthmate GPS BT-20 behind the rear-view mirror or in the rear windshield of your vehicle.

**What is the PIN Code?**

When connecting to a Bluetooth adapter, you may be asked to type a PIN code. If you are asked to enter the PIN code, type four zeros (**0000**).

**The LEDs Do Not Turn On**

If the LEDs do not turn on, ensure the battery is fully charged. If the LEDs still will not turn on, make sure the battery is not inserted upside down. The contacts on the battery should line up with the contacts on the device.

**The Battery Will Not Hold a Charge**

The Li-ion battery is designed to last for 300-500 uses (depending on environmental conditions). Please visit www.delorme.com to purchase a replacement.

**How Do I Know Which COM Port to Use?**

Use the Bluetooth manager software that came with your Bluetooth-enabled PDA/laptop or Bluetooth adapter to check which COM port is associated with the *Earthmate GPS BT-20* device. If the Bluetooth Manager does not display the COM port, use the steps below to determine the correct port to use in the mapping application.

**Note:** Bluetooth-enabled Palm OS devices do not display a COM port number. DeLorme handheld application users can select **Bluetooth** from the Port drop-down list.

**Windows Vista:**

1. From the Start menu, click **Computer**, click **System Properties**, and then click **Device Manager**.
2. Click the plus sign next to **Ports (COM & LPT)**. The port number is listed next to the Bluetooth Communications Port.

**Windows XP and Windows 2000:**

1. From the Start menu:

   Windows XP users: Click Control Panel.

   Windows 2000 users: Click Settings and then click Control Panel.
2. Double-click the **System** icon.
3. Click **Hardware**.
4. Click **Device Manager**.
5. Click the plus sign next to **Ports (COM & LPT)**. The port number is listed next to the Bluetooth Communications Port.

**Windows Mobile/Pocket PC Devices:**

You can find the COM port in your Bluetooth Settings. Refer to your Bluetooth help manual for information about Bluetooth Settings.

## Hardware Specifications

- NMEA 2.0-compliant 12-channel receiver
- STA2051 GPS chip set
- Cold Start: <90 seconds
- Warm start: <38 seconds
- Hot Start: < 1 second
- Power: ~90mA at 3.7V
- Power with a Bluetooth connection: ~118mA at 3.7V
- Maximum Velocity: 1000 knots
- Maximum Altitude: 60,000 feet
- Battery Life: 8 hours (charge up to 500 times)
- Operating Temperature Range: -20° Celsius to + 70° Celsius
- Operating Temperature Range (with battery): -20° Celsius to + 60° Celsius

## FCC Certification

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

## Caution

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

## FCC RF Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

## Battery Caution

THERE IS A RISK OF EXPLOSION IF THE BATTERY IS REPLACED BY AN INCORRECT TYPE. USE ONLY THE SUPPLIED BATTERY. DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS ON THE BATTERY.

## Limited Warranty

DeLorme warrants that your *Earthmate GPS BT-20* device will be free from defects in materials and workmanship for sixty days from the date of purchase. If your *Earthmate GPS BT-20* fails in normal use, DeLorme will, at its sole option, either repair or replace the unit. Such repairs or replacements will be made at no charge for labor or materials. This warranty does not cover failures due to abuse, misuse, accidents, or unauthorized disassembly or modification.

DELORME DISCLAIMS ANY LIABILITY FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOSS OF REVENUES OR PROFITS, EVEN IF DELORME HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

THIS LIMITED WARRANTY CONTAINED HEREIN IS IN LIEU OF ALL OTHER EXPRESS WARRANTIES. ANY AND ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, SHALL LAST FOR SIXTY DAYS.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of relief such as incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitations or exclusions may not apply to you.

# DeLorme Contact Information

### Technical Support

Visit www.delorme.com/support to access the DeLorme Technical Support Knowledge Base, get answers to frequently asked questions, or for additional support information. If you cannot find an answer to your problem on the site, please call 207-846-8900 to speak to a Technical Support representative.

### Customer Service

For general questions about our products, returns, order status, or problems with shipments, call 800-511-2459; Monday-Friday (excluding holidays). For Customer Service hours, visit the DeLorme website at www.delorme.com.

### Direct Sales

For sales questions and to order additional products, call 800-561-5105. To order online or for Direct Sales hours, visit the DeLorme website at www.delorme.com.